

Gahanna Division of Police

Jeffrey B. Spence, Chief of Police



Field Services Subdivision Traffic Survey

Helmbright Drive 03-16-22 to 04-08-22

460 Rocky Fork Blvd.
Gahanna, Ohio 43230
614-342-4240

WWW.GAHANNA.GOV

Survey Device: Speed Monitoring and Notification Device (SMND) # 1137
Survey Operator: Lt. Ethan Moffitt # L-58
Device Location: Helmbright Drive south of Helmbright Court
Device Direction: Facing southbound (facing traffic coming from Havens Corners Road)
Speed Limit: 25 MPH
Survey Dates: 03-16-22 to 04-08-22
Survey Reason: Routine/Random Deployment (prior complaints in area)

Summary –

On 03-16-22, SMND # 1137 was deployed on Helmbright Drive, a location associated with previous community reports of excessive speed. This roadway location serves as a primary route to/from Gahanna Lincoln Elementary School and Gahanna Middle School South and experiences a peak in both pedestrian and vehicular traffic associated with morning and afternoon school arrival and dismissal. The roadway also serves as a primary ingress & egress for the Ashford Glenn at Hunters Ridge and Rathburn Woods neighborhoods via Havens Corners Road to the north and Taylor Road from the south.

The SMND recorded the speed of 65,300 vehicles (combined southbound and northbound traffic). Of those, 24,962, or almost 35%, were traveling in excess of the posted speed limit - the average speed of these vehicles was 28 MPH. The remaining 40,338 vehicles, or almost 62%, were traveling below the speed limit. The average speed of all vehicles (those both above and below the speed limit) was just under 24 MPH.

The 85th percentile speed was 28 MPH, meaning that 85% of all vehicles were traveling at a speed of 28 MPH or less. Five hundred ninety-seven (597) vehicles were traveling in excess of 35 MPH, accounting for less than 1% of the total count (65,300) and 2.4% of the over-limit count (24,962). Conversely, more than 99% of vehicles traveling above the speed limit were going between 26 and 34 MPH.

The survey results demonstrate that the presence of the SMND was an effective mitigation measure. There was substantial compliance with the posted speed limit during the deployment period and few excessive speed violations.

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Survey Description

Survey Details

Survey Location	153 Helmbright Drive, Gahanna, OH	
Survey GPS Coordinates	40.01449,-82.8512	
Survey Dates	Start	Stop
	Wednesday, 3/16/2022 12:59 PM	Friday, 4/8/2022 3:35 PM
Posted Speed Limit	25 (mph)	
Traffic Zone	Normal	
File Name	HelmbrightSurveyDataFileSMND3@2022-04-14_12-48-35.xml	
Device Type	Traffic Trailer	
Device Serial Number	SNAA000000	
Survey Note	SMND 1137	

Total Vehicle Count	65300	
<i>Traffic Direction</i>	South (Closing)	North (Away)
<i>Vehicle Count</i>	31946	33354

Survey Map



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Survey Summary

Survey Description

Survey Location	153 Helmbright Drive,Gahanna, OH	
Survey GPS Coordinates	40.01449,-82.8512	
Survey Dates	Start	Stop
	Wednesday, 3/16/2022 12:59 PM	Friday, 4/8/2022 3:35 PM
Posted Speed Limit	25 (mph)	
Traffic Zone	Normal	

Survey Result

Total Vehicle Count		65300		
	Traffic Direction	Closing South	Away North	Combined
	Vehicle Count	31946	33354	65300
Posted Speed Limit		25 (mph)		
	Vehicles Under the Speed Limit Count	20783	19555	40338
	Vehicles Under the Speed Limit Percentage	65.06%	58.63%	61.77%
	Vehicles Over the Speed Limit Count	11163	13799	24962
	Vehicles Over the Speed Limit Percentage	34.94%	41.37%	38.23%
Excessive Speed Threshold		35 (mph)		
	Vehicles Over the Excessive Speed Count	150	447	597
	Vehicles Over the Excessive Speed Percentage	0.47%	1.34%	0.91%
	Average Speed Over Limit	27.66 (mph)	28.44 (mph)	28.09 (mph)
Speed Profile				
	Average Speed	24.16 (mph)	23.68 (mph)	23.91 (mph)
	Minimum Speed	4 (mph)	2 (mph)	2 (mph)
	Maximum Speed	119 (mph)	111 (mph)	119 (mph)
	85th Percentile Speed	27 (mph)	28 (mph)	28 (mph)
	Standard Deviation	3 (mph)	6 (mph)	5 (mph)
	10 mph Pace	20-29 (mph)	19-28 (mph)	19-28 (mph)
	In Pace Count	26963	23728	50510
Data Recording Limits				
	Highest Speed Allowed	120 (mph)		
	Lowest Speed Allowed	10 (mph)		
	Minimum Following Time	0 Second(s)		

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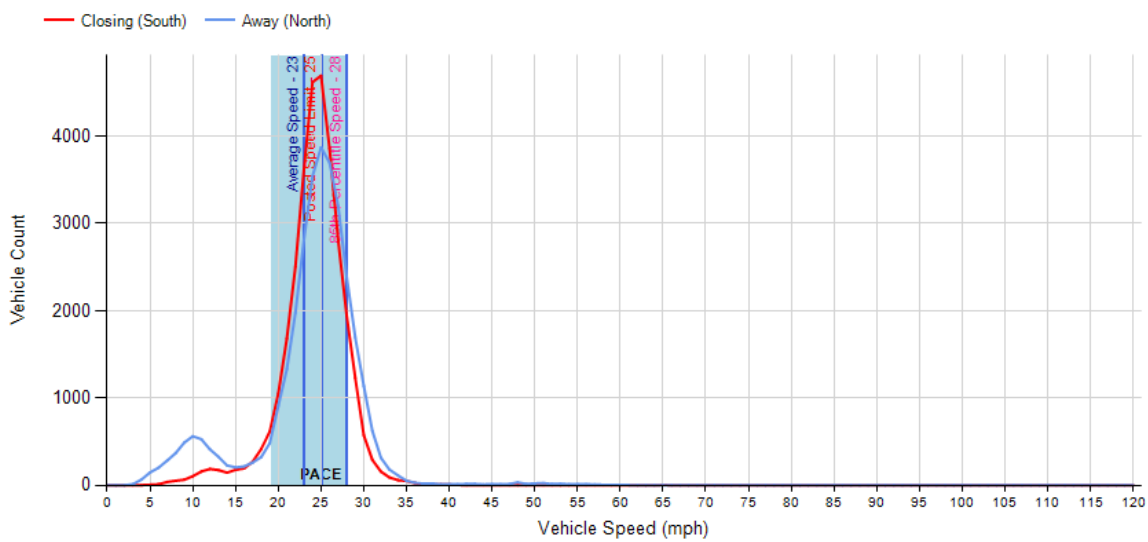
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Posted Speed Limit	25 (mph)	
Traffic Zone	Normal	

Count vs Speed - Line Chart

Date Range: 2022-03-16 - 2022-04-08

Direction: Both



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Survey Description

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Survey Dates	Start	Stop
	Wednesday, 3/16/2022 12:59 PM	Friday, 4/8/2022 3:35 PM
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Traffic Zone	Normal	
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Device Type	Traffic Trailer	
Device Serial Number	SNAA000000	
Survey Note	SMND 1137	

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<i>Vehicle Count</i>	31946	33354

Survey Map



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Survey Summary

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	Wednesday, 3/16/2022 12:59 PM	Friday, 4/8/2022 3:35 PM
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Survey Result

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	Vehicle Count	31946	33354	65300
Posted Speed Limit		25 (mph)		
	Vehicles Under the Speed Limit Count	20783	19555	40338
	Vehicles Under the Speed Limit Percentage	65.06%	58.63%	61.77%
	Vehicles Over the Speed Limit Count	11163	13799	24962
	Vehicles Over the Speed Limit Percentage	34.94%	41.37%	38.23%
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	Vehicles Over the Excessive Speed Percentage	0.47%	1.34%	0.91%
	Average Speed Over Limit	27.66 (mph)	28.44 (mph)	28.09 (mph)
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	Average Speed	24.16 (mph)	23.68 (mph)	23.91 (mph)
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	Highest Speed Allowed	120 (mph)		
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	Minimum Following Time	0 Second(s)		

Gahanna Division of Police

Survey Description

Survey Location 153 Helmbright Drive, Gahanna, OH
Survey GPS Coordinates 40.01449, -82.8512
Survey Dates **Start** Wednesday, 3/16/2022 12:59 PM **Stop** Friday, 4/8/2022 3:35 PM
Posted Speed Limit 25 (mph)
Traffic Zone Normal

Speed - Volume Matrix

Date Range: 2022-03-16 - 2022-04-08

Direction: Both

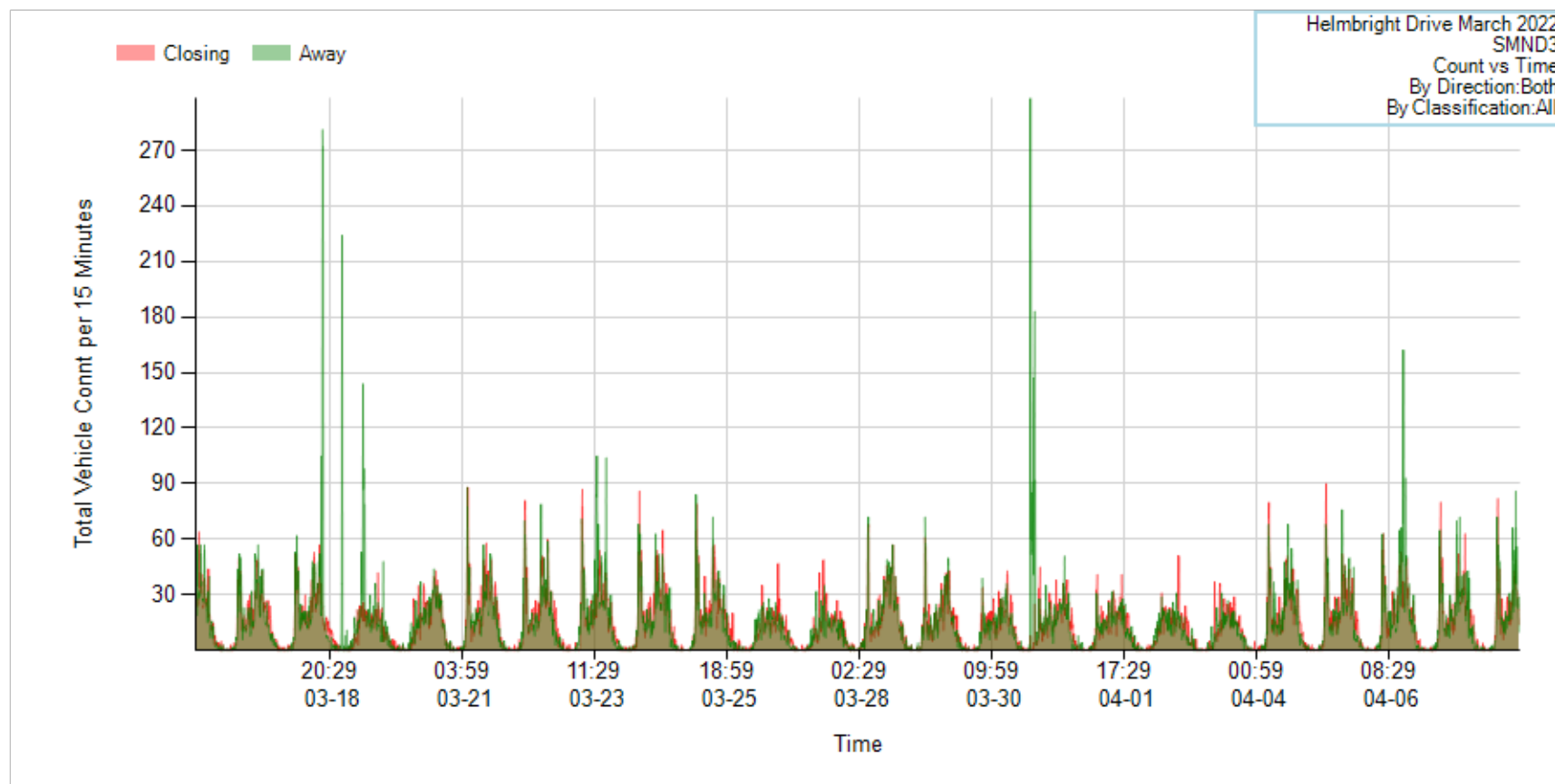
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00:00 - 00:59	150	1	5	23	81	32	7				1							
01:00 - 01:59	316	143	112	8	32	17	2	1				1						
02:00 - 02:59	411	146	176	43	24	20	2											
03:00 - 03:59	450	138	134	45	94	38	1											
04:00 - 04:59	716	81	236	147	180	67	5											
05:00 - 05:59	1125	13	26	84	591	366	30	6	6	2	1							
06:00 - 06:59	6214	17	89	571	3743	1602	112	10	10	21	16	12	6	1	1			3
07:00 - 07:59	3656	15	61	293	1831	1318	114	4	5	3	6	6						
08:00 - 08:59	2579	46	88	177	1232	935	81	5	5	5	4	1						
09:00 - 09:59	2772	42	71	177	1329	1029	103	6	3	4	4	2	2					
10:00 - 10:59	3662	205	155	259	1560	1320	139	7	4	4	6	2	1					
11:00 - 11:59	3500	191	147	225	1542	1262	110	13	3	2	4	1						
12:00 - 12:59	3783	229	139	240	1756	1286	96	10	9	11	7							
13:00 - 13:59	5853	37	133	503	2989	1918	175	23	13	26	20	9	5	1				1
14:00 - 14:59	5939	167	179	408	2750	2196	190	17	5	13	10	4						
15:00 - 15:59	5048	193	177	277	2134	2070	175	13	3	2	3	1						
16:00 - 16:59	6079	133	137	305	2675	2594	209	14	4	4	2	2						
17:00 - 17:59	4550	450	257	223	1837	1632	137	8	2	1	2	1						
18:00 - 18:59	3374	53	71	230	1667	1249	93	6	2	2				1				
19:00 - 19:59	2397	43	72	210	1322	676	64	5	2	1	2							
20:00 - 20:59	1366	39	37	139	670	439	36	2	3	1								
21:00 - 21:59	740	21	18	86	323	267	19	5	1									
22:00 - 22:59	418	6	12	34	206	139	15	2	1	1	1	1						
23:00 - 23:59	202	2	9	25	86	63	17											



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Helmbright Drive March 2022 SMND3-Chart-1



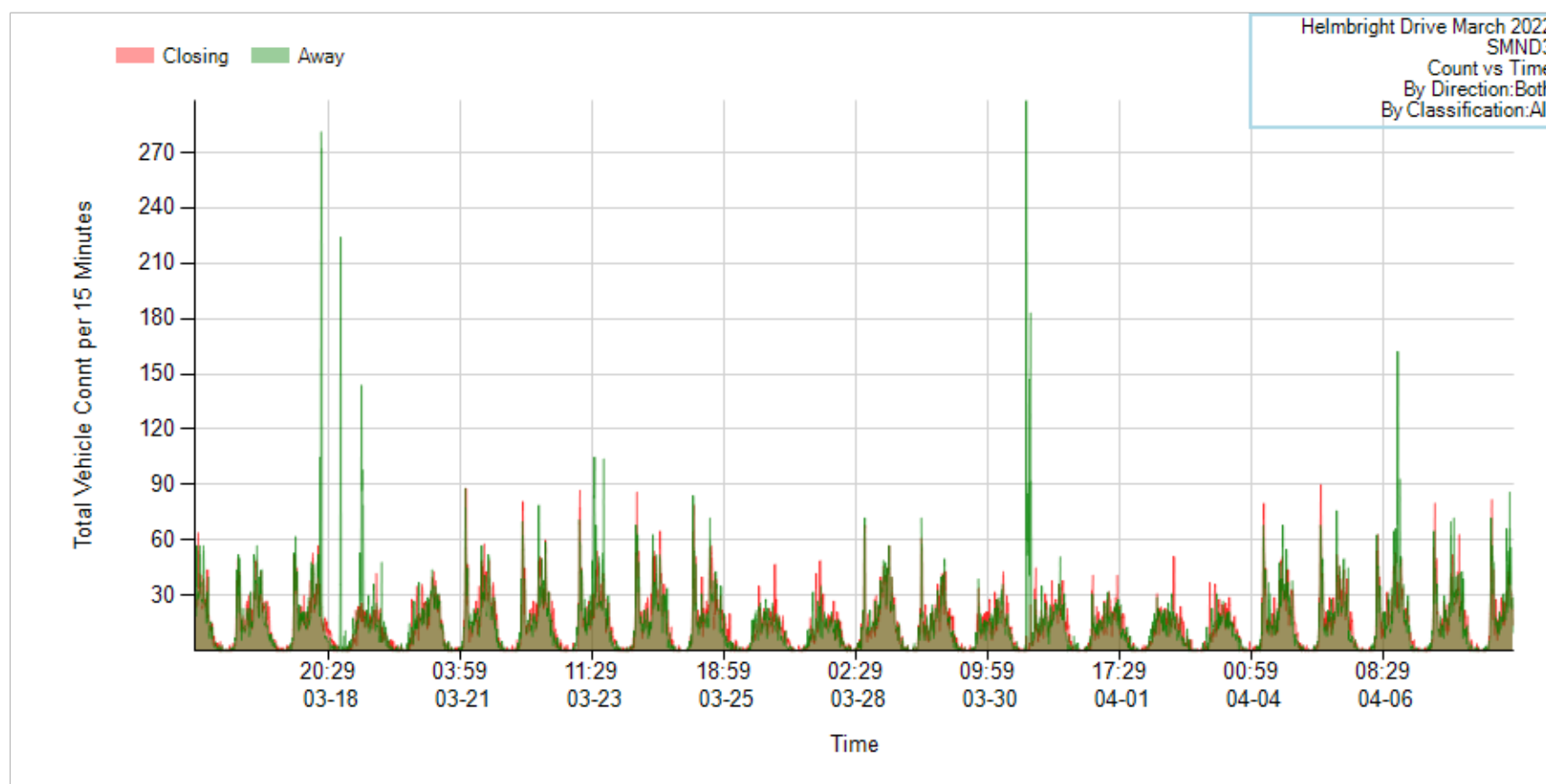
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40508	61.8%



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Count vs. Time



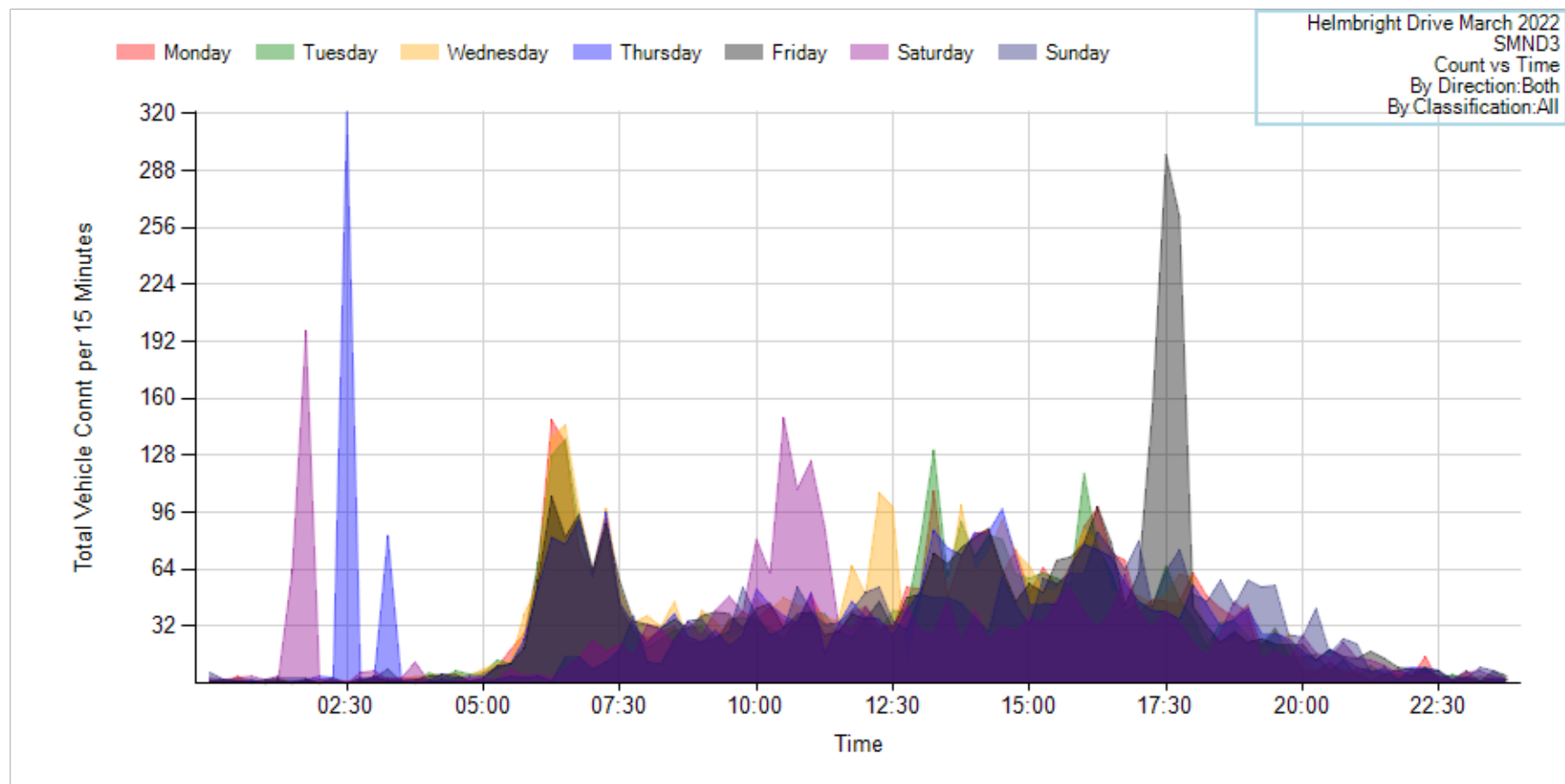
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40508	61.8%
				85th Percentile	28	MPH	Over Threshold Count	600	0%
				10 MPH Pace	19 - 28	MPH	In Pace Count	50662	77.3%



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Weekly Count vs. Time



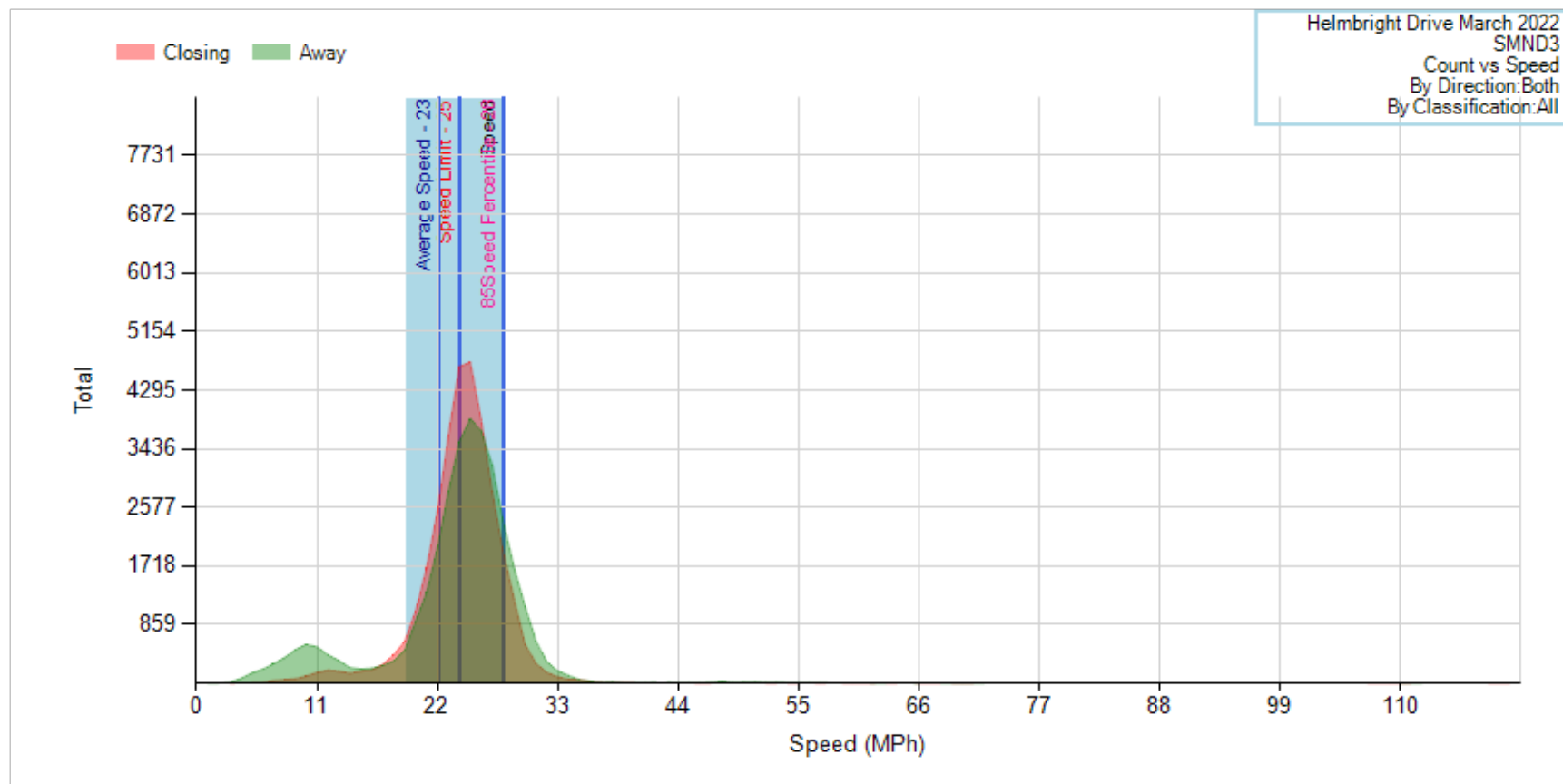
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40508	61.8%
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Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Count vs. Speed



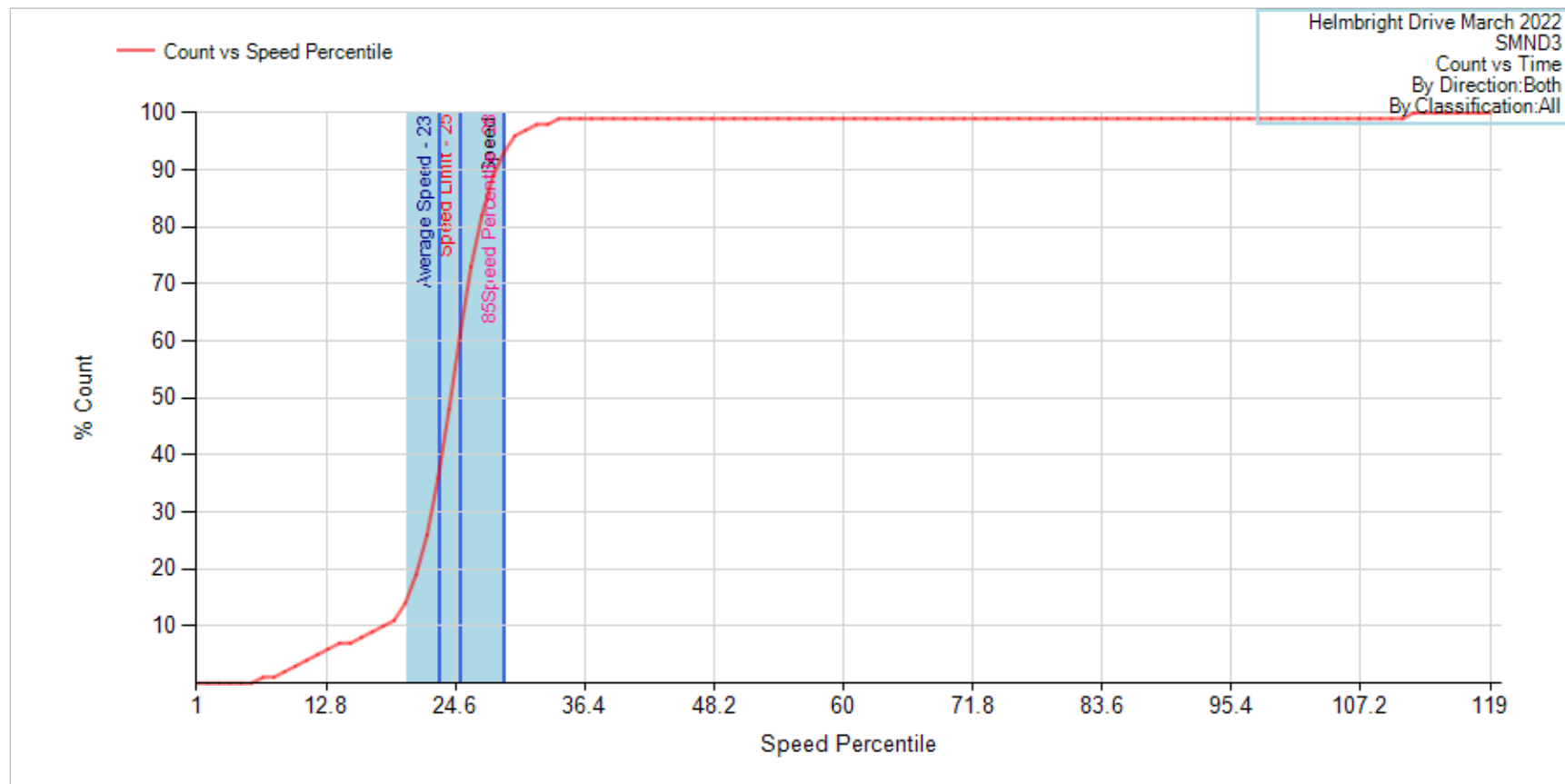
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
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Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Percentile Chart



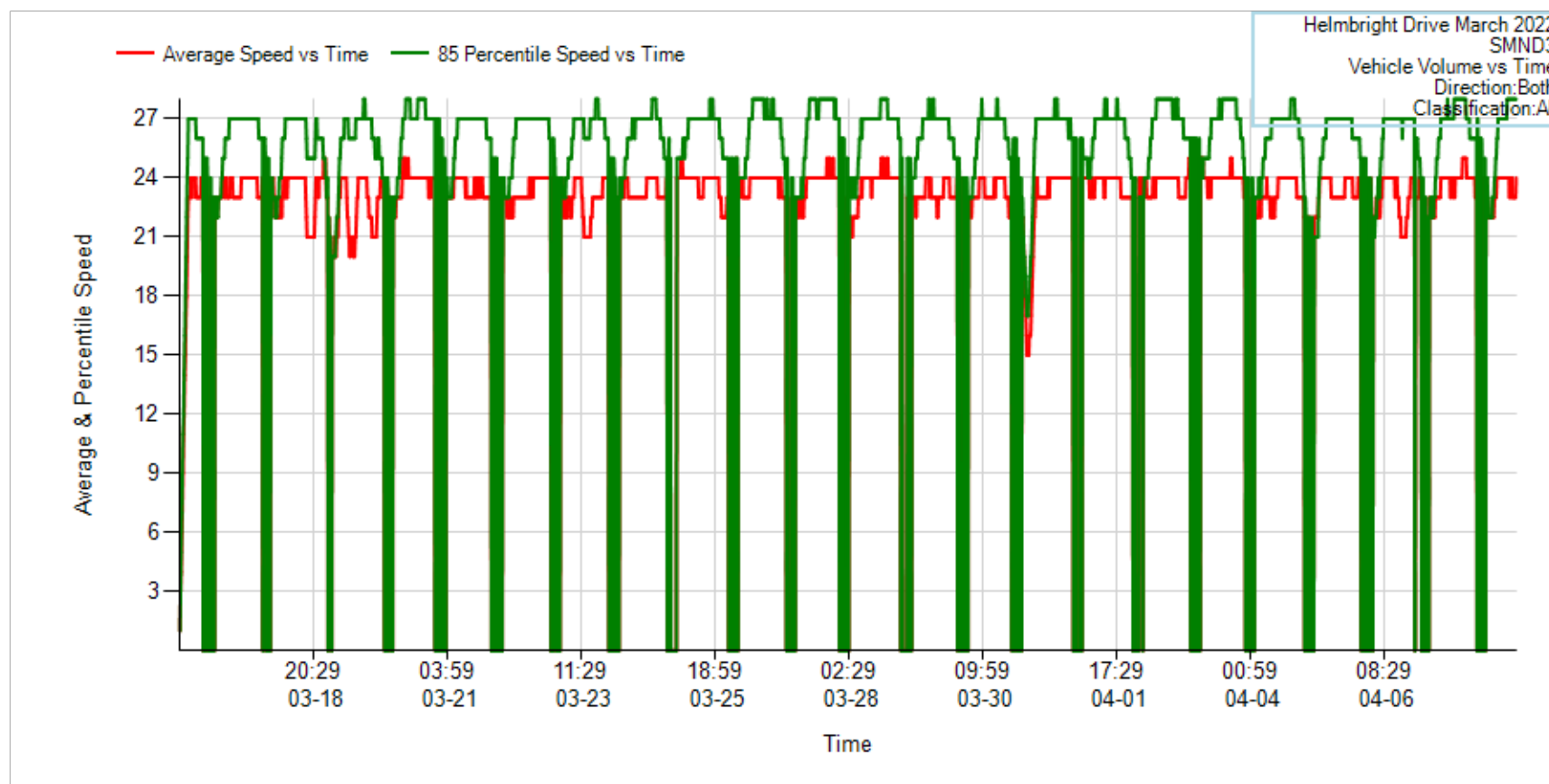
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65527	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25020	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40507	61.8%
				85th Percentile	28	MPH	Over Threshold Count	600	0%
				10 MPH Pace	19 - 28	MPH	In Pace Count	50658	77.3%



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Average Speed vs. Time



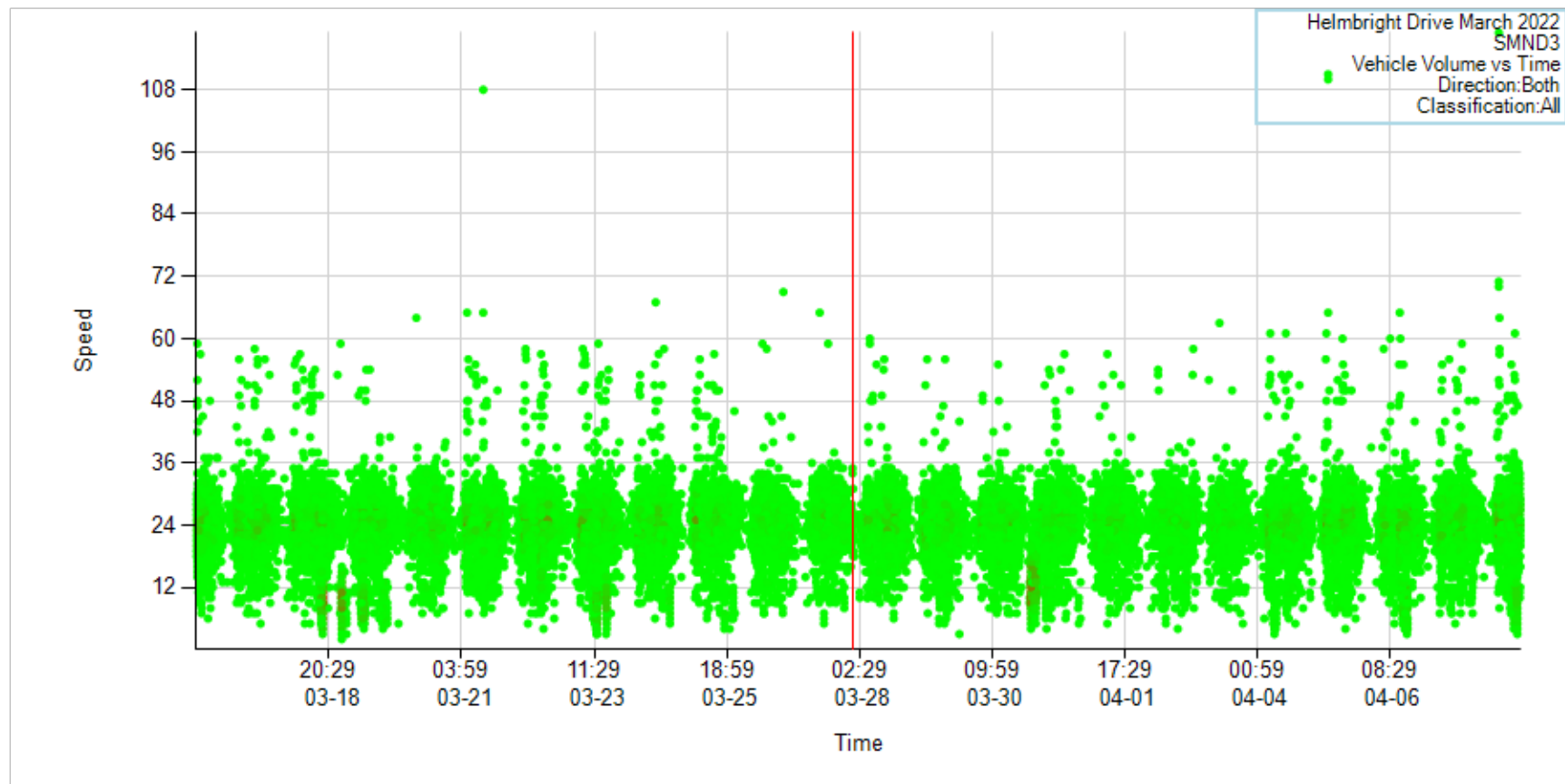
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40508	61.8%
				85th Percentile	28	MPH	Over Threshold Count	600	0%
				10 MPH Pace	19 - 28	MPH	In Pace Count	50662	77.3%



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Speed vs. Time Bubble Chart



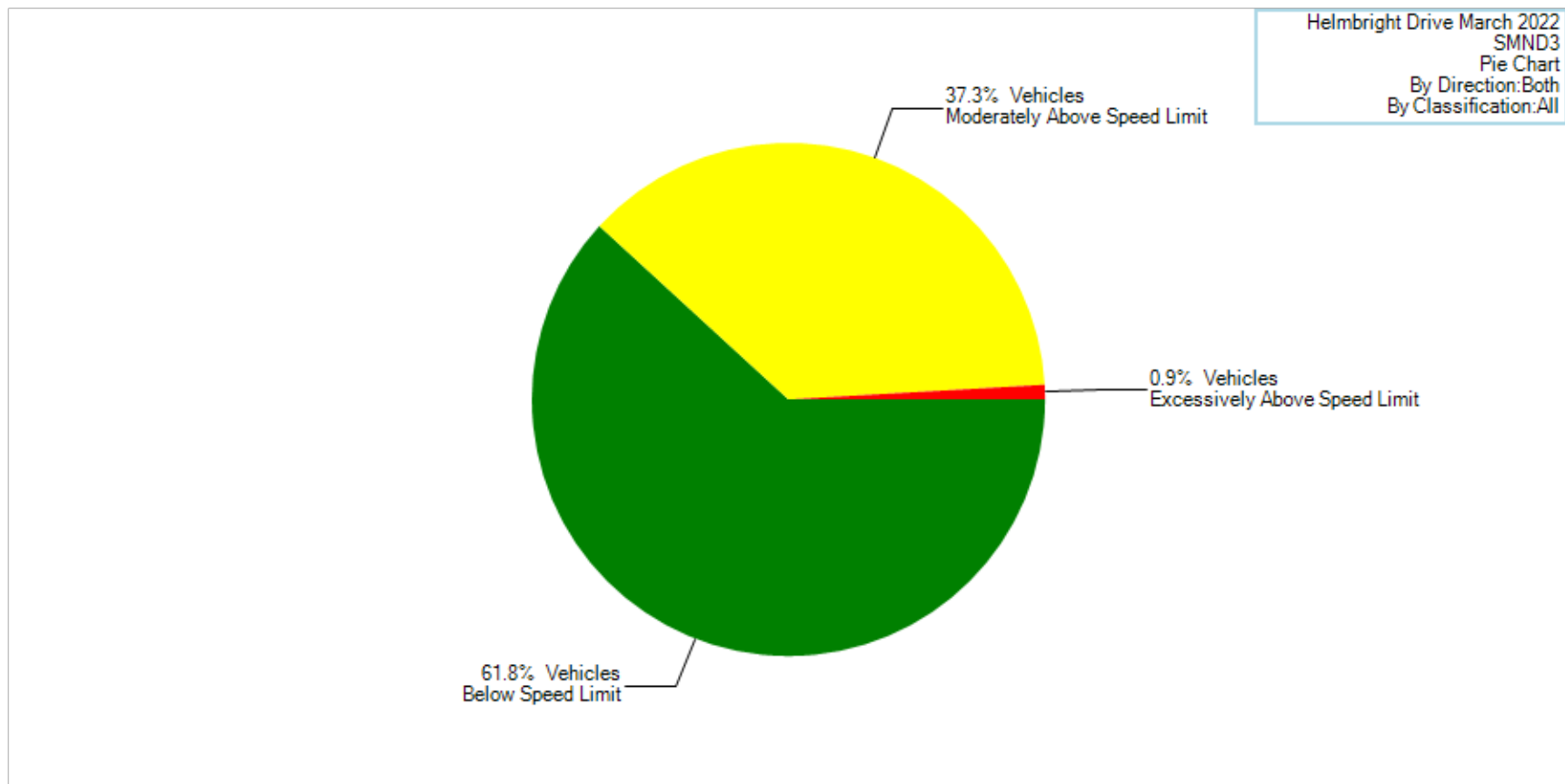
Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
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Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Enforcement Evaluator



Survey Name	Helmbright Drive March 2	Speed Unit	Miles/Hour	Average Speed	23.9	MPH	Total Volume	65533	100%
Start Date	2022-03-16	Speed Limit	25	Max Speed	119	MPH	Over Limit Count	25025	38.2%
Stop Date	2022-04-08			Min Speed	2	MPH	Under Limit Count	40508	61.8%
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				10 MPH Pace	19 - 28	MPH	In Pace Count	50662	77.3%



Gahanna Division of Police Helmbright Drive March 2022 Speed Survey



Survey Name	Helmbright Drive March 2022 ...	Location	153 Helmbright Drive,Gahann...	Speed Unit	Miles/Hour
Start	2022-03-16 12:59	Traffic Direction	Undefined	Speed Limit	25
Stop	2022-04-08 15:35	Zone	Normal	Min Speed Threshold	10
Operator	Traffic Trailer	Min Following Time	0.0	Max Speed Threshold	120
Survey Direction	Both	Time Resolution	1	Speed Resolution	1

Total Vehicle Count	65533	100%	Average Speed	23.9	MPH	In Pace Count	50662	77%
Under Limit Count	40508	61%	Minimum Speed	2	MPH	10 mph Pace	19 - 28	MPH
Over Limit Count	25025	39%	Maximum Speed	119	MPH	Standard Deviation	5	MPH
10 Over Limit Count	600	0%	85Speed Percentile	28	MPH	Average Speed Over Limit	28.1	MPH



Survey Report Quick Guide/Reference

Over Threshold Count

The default threshold (amount over the posted speed limit) is 10 MPH. The **Over Threshold Count** is the number of vehicles traveling in excess of the selected threshold. For example, if the threshold is set at the 10 MPH default, this would indicate the number of vehicles (within the Total Volume) that were traveling at 10 MPH over the posted limited.

Count vs. Time

The **Count vs Time Chart** shows the number of vehicles per unit of time traveling on the monitored roadway.

Weekly Count vs. Time Chart

The **Weekly Count vs. Time Chart** mode shows the vehicle count per day over a 7-day period. If the survey period extends beyond one 7- day week, the values of each overlapped week day will be the average values for those overlapped week days.

Count vs. Speed Chart

The **Count vs. Speed Chart** selection shows the total vehicle count for each speed group. The size of the speed group can be set by the operator (**Speed Resolution** selection in the **Analysis Control**).

Percentile Chart

The **Percentile Chart** shows the cumulative percentage of vehicles that are at or below a given speed

Average Speed vs. Time Chart

The **Average Speed vs. Time Chart** shows the average and the 85th Percentile Speeds of the vehicles over time.

Speed vs. Time Bubble Chart

The **Speed vs. Time Bubble Chart** plots both vehicle speed and volume against time. The size of the bubble represents the number of cars at a particular speed group at a particular time. This chart is useful in showing traffic bunching.

Average Speed

The average speed of all vehicles

85Speed Percentile

The speed at which 85% of the traffic was traveling **at or less than**. The 85th percentile is considered to be a key metric because it is generally considered to be representative of the prevailing traffic conditions (the speed vehicles on the roadway are going most of the time).